REMARKS

The Office Action dated September 23, 2008, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Currently, claims 1, 2, 4-18, 20-35, and 38-64 are currently pending in this application, including independent claims 1, 2, 4, 18, 20, and 35. Claims 1-2, 18, and 35 have been amended to more particularly point out and distinctly claim the invention. No new matter has been added. The Office Action indicated that claims 4, 20, and 38-64 are allowed and Applicants thank the Examiner for this indication of allowance. Claims 1, 2, 5-18, and 21-35 are respectfully submitted for consideration in view of the above amendments and following remarks.

Claim 35 was rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. In particular, claim 35 relates to a computer program embodied on a computer readable medium. The Office Action alleged that the present application does not provide support for the "computer readable medium." Applicants respectfully traverse this rejection.

For example, paragraph [00031] of the present application describes that "the control blocks 200, 210, 220, 226 refer to a block which controls the operation of the device and which is nowadays usually implemented as a processor and its software." Applicants further note that FIG. 2 depicts that a base station, user equipment, and RNC contain these control blocks, and (as defined in relevant technical standards) these

Application No.: 10/519,481

components are computers that inherently include a data storage device. Therefore, Applicants respectfully submit that the application provides more than sufficient disclosure to allow someone of ordinary skill in the field of communications to implement a computer program on a computer readable medium. Thus, withdrawal of the rejection is respectfully requested.

The Office Action further rejected claims 1, 18, and 35 under 35 U.S.C. §112, second paragraph as allegedly failing to particularly point out and distinctly claim the invention that the Applicants regard as the invention. Claims 1, 18, and 35 have been amended, and it is respectfully submitted that the amendments render the rejection moot. Withdrawal of the rejection is respectfully requested.

The Office Action further objected to claim 2 due to a minor clarity concern. Claim 2 has been amended, and it is respectfully submitted that the amendments render the objection moot. Withdrawal of the objection is respectfully requested.

Claim 2 was rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Publication No. 2004/0106417 of Schieder *et al.* ("Schieder"). Applicants respectfully traverse this rejection

Claim 2 is directed to a method including first determining for different circuit arrangement nodes at least one operation to execute and selecting a modification level from the circuit arrangement. The method also includes merging together nodes in the selected modification level and deleting irrelevant nodes and links between the nodes and/or adding new links. The method further includes second determining one or more

division criteria for dividing the signals or signal components into signal classes. The method additionally includes dividing at least one of the signals or signal components according to the one or more division criteria into the signal classes. The method also includes executing the determined operations in the circuit arrangement nodes according to the signal classes.

Applicants respectfully submit that Schieder fails to disclose or suggest all of the elements of any of the presently pending claims.

Schieder generally relates to a method and device for transmitting signals of a first category and signals of a second category over a link. The link provides a predetermined signal transmission rate. The signals of the first category have a discontinuous characteristic including periods of activity and periods of inactivity. A first channel is provided for carrying signals of the first category and a second channel is provided for carrying signals of the second category. The two channels each have respective proportions of the predetermined signal transmission rate of the link during periods of activity of the signals of the first category. The proportion of the signal transmission rate assigned to the second channel during periods of inactivity of the signals of the first category is increased with respect to the period of activity.

Thus, Schieder discusses that the operations are discrimination of speech activity/inactivity and placing data for transmission. Then, the nodes are the speech discriminator and the channel management part. Signal classes are speech and data. The operation to be executed signal-classwise is putting data into the voice frames.

Application No.: 10/519,481

Claim 2 recites, in part, "selecting a modification level from the circuit arrangement." Schieder fails to disclose or suggest at least this feature of claim 2.

The Office Action alleged that Schieder teaches selecting a modification level from the circuit arrangement at paragraph [0034] thereof. Applicants respectfully disagree.

In Figure 4, Schieder provides a schematic block diagram of a communication device which is a terminal station of a mobile communication system (see paragraph [0030] of Schieder).

The communication device of Schieder is operated in such a way that the assignment of transmission rate provided for the link 1 (between the communication device and the rest of the system) is conducted as follows: the channel management part 46 of the device and the node at the other end of the link 1 are controlled such that during periods of speech activity detected by discriminator 45, the transmission capacity of link 1 is assigned to both the traffic channel TCH and the packet channel (see paragraph [0034] and Figure 1 of Schieder).

The object of Schieder is to provide a method and device for transmitting signals including time-sensitive data and non-time-sensitive data on a common link in such a way that transmission can be carried out during periods of inactivity of time-sensitive data (see paragraphs [0013]-[0014] of Schieder).

Briefly, Schieder discusses a method to control transmission over the radio interface. Schieder, however, is silent about selecting a modification level from a circuit

Application No.: 10/519,481

arrangement. In fact, Schieder is silent about all kinds of modification of the circuit arrangement. Thus, Schieder fails to disclose or suggest all of the elements of claim 2, and withdrawal of the rejection of claim 2 is respectfully requested.

Claim 1, 5-18, and 21-35 were rejected under 35 U.S.C. §103(a) as being allegedly obvious in view of the combination of Schieder and U.S. Patent No. 6,573,757 of Gallagher ("Gallagher"). The Office Action acknowledged that Schieder fails to disclose certain features of the claims, and cited Gallagher to remedy Schieder's deficiencies. Applicants respectfully traverse this rejection.

Claim 1, upon which claims 5-17 depend, is directed to a method including first determining for different nodes of a circuit arrangement one or more predetermined operations to execute. The method also includes second determining one or more division criteria for dividing signals or signal components into signal classes. The method further includes dividing at least one of the signals or signal components according to the one or more division criteria into the signal classes. The method additionally includes executing the predetermined operations in the circuit arrangement nodes according to the signal classes. The circuit arrangement is at least substantially in accordance with a combined tree structure comprising at least one first tree branch configured to perform transmitter tasks and at least one second tree branch configured to receive receiver tasks, and wherein the circuit arrangement comprises one or more nodes of different branches connected in a predetermined manner.

Application No.: 10/519,481

Claim 18, upon which claims 21-34 depend, is directed to an apparatus including nodes arranged to perform at least one operation. The apparatus also includes a divider configured to divide one or more signals or signal components according to one or more predetermined division criteria into signal classes. The apparatus further includes performing circuitry configured to perform predetermined operations according to the signal classes. The apparatus is configured substantially in a combined tree structure comprising at least one first tree branch configured to perform transmitter tasks and at least one second tree branch configured to performs receiver tasks, and wherein the combined tree structure comprises one or more nodes of different branches connected in a predetermined manner.

Claim 35 is directed to a computer program embodied on a computer readable medium, the computer readable medium storing code comprising computer executable instructions. The instructions include instructions for first determining for different nodes of a circuit arrangement one or more predetermined operations to execute. The instructions also include instructions for second determining one or more division criteria for dividing signals or signal components into signal classes. The instructions further include instructions for dividing at least one of the signals or signal components according to the one or more division criteria for the signal classes. The instructions additionally include instructions for executing the predetermined operations in the circuit arrangement nodes according to the signal classes. The circuit arrangement is at least substantially in accordance with either (a) a combined tree structure comprising at least

Application No.: 10/519,481

one tree branch configured to perform transmitter tasks and at least one second tree branch configured to perform receiver tasks, and wherein the circuit arrangement comprises one or more nodes of different branches connected in a predetermined manner; or (b) a centralized loop such that at least two subtrees are connected to the loop, wherein at least one subtree performs tasks of radio-frequency parts and at least one second subtree performs tasks of baseband parts.

Applicants respectfully submit that the combination of Schieder and Gallagher fails to disclose or suggest all of the elements of any of the presently pending claims.

Claim 1 recites, in part, "wherein the circuit arrangement is at least substantially in accordance with a combined tree structure comprising at least one first tree branch configured to perform transmitter tasks and at least one second tree branch configured to receive receiver tasks, and wherein the circuit arrangement comprises one or more nodes of different branches connected in a predetermined manner." The combination of Schieder and Gallagher fails to disclose or suggest at least this feature of claim 1.

Although the Office Action has acknowledged that Schieder does not disclose such a feature, the Office Action has alleged (in essence) that Gallagher teaches a circuit arrangement that is at least substantially in accordance with a combined tree structure, wherein at least one tree branch performs input tasks and at least one second branch performs input tasks, and in which circuit arrangement one or more nodes of different branches is connected in a predetermined manner (citing column 3, lines 65-67, and column 4, lines 1-6, of Schieder) and it would have been obvious to one of ordinary skill

Application No.: 10/519,481

in the art to arrive at the invention according to the claims. Applicants respectfully disagree.

Gallagher discusses a signal matching device that may be implemented with low inductance, which may enable high frequency chips, such as clock chips with tight skew parameters and/or specifications (see column 1, lines 61-67, of Gallagher). The device includes an output connected to a plurality of inputs through a tree of connections (see column 2, lines 1-7, of Gallagher). Thus, Gallagher discusses an apparatus for signal matching that may implement meanders to keep all signal paths equidistant, match signal lines to any number of inputs from a single output, implement splits that travel an equal distance before they split again to guarantee equidistant lines, and/or implement all lines in a methodical manner (see column 2, lines 8-17, of Gallagher).

A tree structure Gallagher mentions is a tree structure of connections as can clearly be seen in all the Figures of Gallagher and what is also disclosed in column 2, lines 1-7 of the same document ("tree of connections"). Not one of the Figures of Gallagher presents a circuit arrangement comprising nodes as recited in the present claims (such as, for example, claim 1). Since the tree structure of Gallagher does not include any nodes, it cannot perform receiver or transmitter tasks or any other tasks of a node.

The input tasks and output tasks the Office Action referenced, are merely allegations. Gallagher mentions a concrete circuit having input and output pins (column

Application No.: 10/519,481

1, lines 14-29) and pins only convey signals. They do not include any processors or corresponding elements capable to execute operations.

Furthermore, Gallagher does not teach that nodes are connected. Naturally, since there are no nodes, there are no connections between them.

Schieder discusses a method and device for transmitting signals whereas Gallagher discusses a signal line matching technique in integrated circuits and/or printed circuit boards (see, for example, column 1, lines 5-10, of Gallagher). Thus, Schieder and Gallagher are in different technical fields and a person of ordinary skill in the art would not seek for Gallagher to overcome any defects in Schieder. Thus, even if a hypothetical combination of the references would correspond to what is claimed, one of ordinary skill in the art would see no reason (such as teaching, motivation, or suggestion) to make the proposed combination, since the two references are directed to such different objectives from one another.

Even if a person of ordinary skill in the art, however, had combined Schieder and Gallagher (not admitted that this would occur), such a person would not have arrived at the teachings of the present claims. Specifically, it is hard to conceive of how signal line matching of Gallagher would be used in data transmission over the radio path of Schieder, without using hindsight provided by the present application's disclosure. Thus, it is respectfully requested that the rejection of claim 1 be withdrawn.

Independent claims 18 and 35 each have their own scope. Each of claims 18 and 35 have at least some similar recitations to those discussed above with respect to claim 1,

Application No.: 10/519,481

and were rejected on similar grounds with respect to those similar features. Thus, the explanation above also serves to demonstrate that a *prima facie* rejection of claims 18 and 35 is not present. Accordingly, it is respectfully requested that the rejections of claims 18 and 35 be withdrawn.
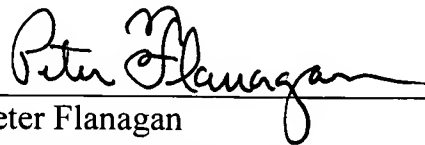
Claim 5-17 and 21-34 depend respectively from, and further limit, claims 1 and 18. It is, therefore, respectfully submitted that each of claims 5-17 and 21-34 recite subject matter that is neither disclosed nor suggested by the combination of Schieder and Gallagher. Thus, it is respectfully requested that the rejection of claims 5-17 and 21-34 be withdrawn.

For the reasons set forth above, it is respectfully submitted that each of claims 1-2, 4-18, 20-35, and 38-64 recite subject matter that is neither disclosed nor suggested in the cited art. It is, therefore, respectfully requested that all of claims 1-2, 4-18, 20-35, and 38-64 be allowed, and that this application be passed to issuance.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, Applicants' undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

Application No.: 10/519,481

In the event this paper is not being timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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Application No.: 10/519,481